Subpart E—Research

§ 439.50 Applicability.

This subpart applies to discharges of process wastewater resulting from pharmaceutical research.

[63 FR 50436, Sept. 21, 1998]

§ 439.51 Special definitions.

For the purpose of this subpart, *product* means products or services resulting from research and product development activities.

[68 FR 12274, Mar. 13, 2003]

§ 439.52 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BPT:

(a) The limitation for BOD_5 is the same as specified in § 439.12(a). No facility shall be required to attain a monthly average limitation for BOD_5 that is less than the equivalent of 45 mg/L.

(b) The limitation for TSS is the same as specified in § 439.12(b).

(c) The maximum monthly average limitation for COD, expressed as mass loading (lbs, kg) per day, must reflect not less than 74 percent reduction in the long-term average daily COD load of the raw (untreated) process wastewater, multiplied by a variability factor of 2.2. No facility shall be required to attain a limitation for COD that is less than the equivalent of 220 mg/L.

(d) The long-term average daily BOD_5 or COD mass loading of the raw process wastewater (*i.e.,* the base number to which the percent reduction is applied) is defined as the average daily BOD_5 or COD load during any calendar month, over 12 consecutive months within the most recent 36 months.

(1) To assure equity in the determination of NPDES permit limitations regulating discharges subject to this subpart, calculation of the long-term average daily BOD_5 or COD load in the influent to the wastewater treatment system must exclude any portion of the load associated with solvents, except for residual amounts of solvents remaining after the practices of recovery and/or separate disposal or reuse. Residual amounts of these substances may be included in the calculation of the average influent BOD_5 or COD loading.

(2) The practices of recovery, and/or separate disposal or reuse include: recovery of solvents from wastestreams; and incineration of concentrated solvent wastestreams (including tar still bottoms). This regulation does not prohibit the inclusion of such wastes in raw waste loads in fact, nor does it mandate any specific practice, but rather describes the rationale for determining NPDES permit limitations. The effluent limitation for BOD_5 or COD may be achieved by any of several, or a combination, of these practices.

(e) The pH must be within the range 6.0 to 9.0.

[63 FR 50436, Sept. 21, 1998, as amended at 68 FR 12274, Mar. 13, 2003]

Appendix A to Part 439—Tables

Table 1—Surrogate Parameters for Direct Dischargers

[Utilizing biological treatment technology]

Regulated parameters	Treatability class
Amyl alcohol	Alcohols.
Ethanol [1]	
Isopropanol [1]	
Methanol [1]	
Phenol	
Isobutyraldehyde [1]	Aldehydes.
n-Heptane [1]	Alkanes.
n-Hexane [1]	
Diethylamine [1]	Amines.
Triethylamine	
Benzene	Aromatics.
Toluene [1]	
Xylenes [1]	
Chlorobenzene	
o-Dichlorobenzene	
Chloroform [1]	Chlorinated Alkanes.
Methylene chloride [1]	
1,2-Dichloroethane [1]	
Ethyl acetate [1]	Esters.
Isopropyl acetate	
n-Amyl acetate	
n-Butyl acetate	
Methyl formate	
Tetrahydrofuran [1]	Ethers.
Isopropyl ether	
Acetone [1]	Ketones.
4-Methyl-2-pentanone (MIBK)	
Ammonia (aqueous)	Miscellaneous. [2]
Acetonitrile	
Methyl Cellosolve	

TABLE 1—SURROGATE PARAMETERS FOR DIRECT DISCHARGERS—Continued

[Utilizing biological treatment technology]

Regulated parameters	Treatability class
Dimethyl Sulfoxide	

[1] These parameters may be used as a surrogate to represent other parameters in the same treatability class.
[2] Surrogates have not been identified for the ''Miscellaneous'' treatability class.

TABLE 2—SURROGATE PARAMETERS FOR INDIRECT DISCHARGERS (UTILIZING STEAM STRIPPING TREATMENT TECHNOLOGY)

Regulated parameters	Treatability class
Benzene Toluene [1] Xylenes n-Heptane Chloroform [1] Methylene chloride [1] Chlorobenzene	High strippability.
Ammonia (aqueous) Diethyl amine Triethyl amine Acetone [1] 4-methyl-2-pentanone n-Amyl acetate n-Butyl acetate Ethyl acetate Isopropyl acetate Methyl formate Isopropyl ether Tetrahydrofuran [1] 1,2-dichloroethane o-Dichlorobenzene	Medium strippability.

[1] These parameters may be used as a surrogate to represent other parameters in the same treatability class.

[63 FR 50437, Sept. 21, 1998; 64 FR 10393, Mar. 4, 1999, as amended at 68 FR 12275, Mar. 13, 2003]

PART 440—ORE MINING AND DRESSING POINT SOURCE CATEGORY

Subpart A—Iron Ore Subcategory

Sec.

Subpart B—Aluminum Ore Subcategory

Subpart C—Uranium, Radium, and Vanadium Ores Subcategory

Subpart D—Mercury Ore Subcategory